

Embodiments of the present invention are also disclosed in copending United States Patent Applications entitled (i) System for Interaction with Exercise Device, to Scott R. Watterson, William T. Dalebout and Darren C. Ashby, filed August 18, 2000, which is incorporated herein in its entirety by reference; and (ii) Systems and Methods for Interaction with Exercise Device, to Scott R. Watterson, William T. Dalebout and Darren C. Ashby, filed August 18, 2000, which is incorporated herein in its entirety by reference.

As used in this specification and the appended claims, the phrases “communicating with,” and “in communication with” and similar phrases shall mean any type of applicable communication known to one skilled in the art in light of the disclosure herein, such as electrical communication, optical communication, physical communication, magnetic communication, software communication, hardware communication, data communication, and the like.

The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All changes which come within the meaning and range of equivalency of the claims are to be embraced within their scope.

What is claimed and desired to be secured by United States Letters Patent is:

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1. A computer system for enabling interaction between one or more users with one or more trainers, the computer system comprising:

(a) a user module adapted to control one or more operating parameter of an exercise device, the user module being adapted to receive packetized programming including at least one control signal;

(b) a trainer module communicating with the user module and capable of generating the packetized programming representative of changes to be made to the one or more operating parameters of the exercise device; and

(c) a communication module in communication with the user module and the trainer module, the communication module being configured to deliver the packetized programming including the at least one control signal to the user module.

2. A computer system as recited in claim 1, wherein the communication module is in real time communication with the user module and the training module such that the communication module delivers programming to the user module in real time.

3. A computer system as recited in claim 1, wherein the user module comprises:

(a) a user interface module adapted to gather one or more user inputs from the user;

(b) an exercise module in communication with the user interface and configured to enable a user to exercise; and

(c) an interface module, in communication with the exercise module, configured to receive the packetized programming including one or more control signals and deliver the same to the exercise module.

4. A computer system as recited in claim 3, wherein the user module further comprises a safety module disposed between the exercise module and the interface module, the safety module being configured to maintain the operation of the exercise module in the event that the user module becomes disconnected from the communication module.

5. A computer system as recited in claim 3, wherein the user module further comprises a safety module disposed between the exercise module and the interface module, the safety module being configured to automatically disconnect the user module from the communication module when the user has completed the programming received from the communication module.

6. A computer system as recited in claim 1, wherein the user module further comprises a data storage module configured to store the programming and the one or more control signals received from the communication module.

7. A computer system as recited in claim 1, wherein the communication module comprises:

(a) a user interface module configured to communicate with the user module;

(b) a control signal generation module configured to generate the one or more control signals; and

(c) a control module configured to synchronize the one or more control signals with the programming.

8. A computer system as recited in claim 7, wherein the control module obtains the programming from the user module.

9. A computer system as recited in claim 7, wherein the control module obtains the programming from a data storage module.

10. A computer system as recited in claim 1, wherein the trainer module comprises a control signal generation module configured to generate the one or more control signals.

1 11. A computer system as recited in claim 10, wherein the communication module
2 comprises:

3 (a) a user interface module configured to communicate with the user
4 module;

5 (b) a data storage module configured to store the programming; and

6 (c) a control module configured to synchronize the one or more control
7 signals received from the trainer module with the programming.
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9 12. A computer system as recited in claim 1, further comprising a third party
10 control module, the third party control module being configured to control user module
11 and trainer module via communication module.
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13 13. A computer system as recited in claim 1, wherein the communication module
14 comprises a web site.
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16 14. A computer system as recited in claim 1, wherein a user of the user module
17 may log into the web site, wherein the communication module track the actions taken by
18 the user upon accessing the web site.
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1 15. A computer system as recited in claim 14, wherein the communication module
2 tracks one or more parameters selected from the group consisting of: (i) the time that a user
3 exercises; (ii) the location from which the user is logging in to the web site; (iii) the
4 exercise devices used by the user; (iv) the purchases made by the user.

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6 16. A computer system as recited in claim 14, wherein upon a user logging out of
7 the web site, communication module resets one or more login parameters of the user.

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9 17. A computer system as recited in claim 1, wherein the programming comprise
10 one or more advertisement banners.

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12 18. A computer system as recited in claim 17, wherein the one or more
13 advertisement banners are periodically displayed to the user of the user module.

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15 19. A computer system as recited in claim 18, wherein the one or more
16 advertisement banners are continuously displayed to the user of the user module.

1 20. A computer system for enabling one or more users to interact with one another,
2 comprising:

3 (a) a first user module adapted to control one or more operating parameters
4 of an exercise device, the first user module generating a first signal;

5 (b) a second user module adapted to control one or more operating
6 parameters of an exercise device; and

7 (c) a communication module, in communication with the first user module
8 and the second user module, the communication module being configured to
9 deliver said first signal to said second user module.

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11 21. A computer system as recited in claim 20, wherein the second user module
12 generates a second signal and the communication module is configured to deliver the
13 second signal to the first user module.

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15 22. A computer system as recited in claim 20, wherein the communication module
16 controls both the first user module and the second user module in real-time.

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18 23. A computer system as recited in claim 20, wherein the communication module
19 stores said first signal and subsequently delivers said first signal to said second user
20 module upon second user module requesting the same from the communication module.

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22 24. A computer system as recited in claim 23, wherein the first signal comprises a
23 signal selected from the group consisting of an audio signal and a video signal.
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25. A computer system as recited in claim 20, wherein the communication system delivers a program signal to the second user module, said program signal representative of a program performed by the first user module to generate the first signal.

1 26. A method of operating one or more operating parameters of an exercise module
2 of a user module, the method comprising the steps of:

3 (a) preparing a first signal for delivery to a communication module;

4 (b) in response to the first signal, producing and packetizing programming
5 having one or more control signals for controlling the one or more operating
6 parameters of the exercise device; and

7 (c) reproducing and depacketizing the programming and adjusting the one
8 or more operating parameters of the exercise module in response to the one or more
9 control signals.

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11 27. A method as recited in claim 26, wherein the preparing step comprises:

12 (a) gathering one or more signals representative of a user exercising on the
13 exercise module; and

14 (b) manipulating the one or more signals into a form capable of being
15 delivered via a network to the communication module.

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17 28. A method as recited in claim 26, wherein the first and second signals are each
18 real time signals and wherein the programming is reproduced and depacketized in real
19 time.
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1 29. A method as recited in claim 28, wherein the producing and packetizing step
2 comprises:

3 (a) transmitting the first real-time signal to a trainer module located at a
4 distant location from the user module;

5 (b) in response to the first real-time signal, creating the programming and
6 the one or more control signals; and

7 (c) synchronizing the programming and the one or more control signals
8 before transmittal to the communication module.

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10 30. A method as recited in claim 26, wherein the producing and packetizing step
11 comprises:

12 (a) selecting the programming from a data storage module of the
13 communication module;

14 (b) in response to the first signal, generating the one or more control
15 signals; and

16 (c) synchronizing the programming and the one or more control signals.

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18 31. A method as recited in claim 26, further comprising the step of transmitting the
19 programming and the one or more control signals from the communication module to the
20 exercise module.

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22 32. A method as recited in claim 26, wherein the reproducing step comprises
23 delivering the programming to one or more output devices.
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33. A method as recited in claim 32, wherein the one or more output devices comprises one or more video displays and one or more speakers.

35. A method as recited in claim 34, wherein the first and second signals are each real time signals and wherein the programming is reproduced and depacketized in real time.

1 36. A method of operating one or more operating parameters of an exercise device,
2 the method comprising the steps of:

3 (a) receiving a first signal from the exercise device at a distant location;

4 (b) in response to the first signal, producing and packetizing programming
5 having one or more control signals for controlling the one or more operating
6 parameters of the exercise device; and

7 (c) upon producing and packetizing the programming, transmitting the
8 packetized programming to the exercise device that is configured to reproduce and
9 depacketize the programming and adjust the one or more operating parameters of
10 the exercise device in response to the control signals.

11 37. A method as recited in claim 36, wherein the first signal comprises a real time
12 signal.

38. A computer product for implementing a method for operating one or more operating parameters of a user module, the computer program product comprising:

a computer readable medium carrying computer-executable instructions for implementing the method where the computer-executable instructions comprise:

program code means for preparing a first signal for delivery to a communication system at a distant location;

program code means, responding to the first signal, for producing and packetizing programming having one or more control signals for controlling the one or more operating parameters of the exercise device; and

program code means for reproducing and depacketizing the programming and adjusting the one or more operating parameters of the exercise device in response to the control signals.

39. A product as recited in claim 38, wherein the first signal comprises a real time signal and wherein the program is reproduced and depacketized in real time.

1 40. In a system for enabling one or more users to interact with one or more trainers
2 in real-time communication, a computer-readable medium having computer-executable
3 instructions comprising:

4 (a) a user module adapted to control one or more operating parameter of the
5 exercise device, the user module being adapted to receive packetized programming
6 including one or more control signals;

7 (b) a trainer module communicating with the user module and capable of
8 scheduling the generation of the packetized programming that includes the one or
9 more control signals representative of changes to be made to the one or more
10 operating parameters of the exercise device; and

11 (c) a communication module, in real-time communication with the user
12 module and the trainer module, the communication system being configured to
13 deliver the programming and the one or more control signals to the user module in
14 real-time.

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1 41. A computer system for enabling one or more users to interact with one another
2 in real-time communication, comprising:

3 (a) a first user module adapted to control one or more operating parameter
4 of an exercise device, the first user module generating a first real-time signal;

5 (b) a second user module adapted to control one or more operating
6 parameter of an exercise device, the second user module generating a second real-
7 time signal; and

8 (c) a communication module, in real-time communication with the first user
9 module and the second user module, the communication module being configured
10 to deliver said first real-time signal to said second user module and said second
11 real-time signal to said first user module.